IBM ISPF Productivity Tool for z/OS V 6.1

More Than Just ISPF

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ISPF Productivity Tool

- **Extends the productivity of ISPF**

  – Seamless integration with ISPF

  – Organize files using Object Lists

  – Minimize panel navigation and improve productivity

  - Shortcuts
  - IPT commands
  - Extensive "Find" capabilities across multiple files
    – DBCS and Hexadecimal searches
    – Case sensitive searches
    – Limited to specific columns

  – Reduce keystrokes

ISPF Productivity Tool – Compared to ISPF
Using an Object List

Object List may be a list of files….

```
Numbr Data Set Names / Objects                          Class
----- ------------------------------------------------  -------
    1 'FILEMGR.V8R1.INSTALL'                             PDS
    2 'FILEMGR.V8R1.SFMNDBRM'                            PDS
    3 'FILEMGR.V8R1.SFMNEXEC'                            PDS
    4 'FILEMGR.V8R1.SFMNMAC1'                            PDS
    5 'FILEMGR.V8R1.SFMNMENU'                            PDS
    6 'FILEMGR.V8R1.SFMNMODA'                            PDS
    7 'FILEMGR.V8R1.SFMNMOD2'                            PDS
    8 'FILEMGR.V8R1.SFMNPENU'                            PDS
    9 'FILEMGR.V8R1.SFMNSAM1'                            PDS
   10 'FILEMGR.V8R1.SFMNSLIB'                            PDS
   11 'FILEMGR.V8R1.SFMNTENU'                            PDS
   12 'FILEMGR.V8R1.SIPVMENU'                            PDS
   13 'FILEMGR.V8R1.SIPVMOD1'                            PDS
```

ISPF Productivity Tool – Compared to ISPF
Using an Object List

Object List may also contain:

- z/OS Files
  - Unix System Services Files
  - Native UNIX" support - z/OS v1.9.
  - VSAM files
  - Sequential
  - Tape
  - Migrated
  - PC files
  - Panvalet or Librarian
  - SCLM Hierarchy
  - Files on specific volumes
  - Files referenced by DD name
- Dynamic list of APF libraries
- Linklist libraries
- LPA libraries
- DB2 tables

Object List Example

```
Numbr Data Set Names / Objects
----- ------------------------------------
    1  !-------- LAB FILES ----
    2  :LISTS
    3  OLVS
    4  )/u/dnet424/test
    5  /u/dnet424/testfile
    6  ADLAB.JCL
    7  :LISTS APFLIB
    8  'DEBUG.V7R1.**'
    9  :LISTV DMPU2* DNET424.**
   10  -DSNC_DSN8710.EMP
   11  =DNET424 ADWORK ADLAB SOURCE
   12  =DNET424 DEV1 DEV2 TEST RELEASE SOURCE
```

Example 1 - Find a Member Within an OLIST with 13 PDS libraries

ISPF – Find a member

– Steps Required:

- Use option 3.4 to locate files
- For each file:
  - Browse each file
  - Locate the member
  - Exit the file
- Repeat the steps above for each of the 13 files
- Steps required for 13 files:
  - 13 x 3 = 39

Keystrokes: (B;Enter;L member;F3)
(14*13) = 182
Time: 90 seconds

IPT – Find a member in an OLIST

– Steps Required:

- Issue FM command in an OLIST
- Steps required: 1

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Keystrokes: (FM member;F5*x)
(11+5) = 16
Time: 5 seconds

Example 2 – Find Text Within an Object List for 13 PDS or PDSE libraries

ISPF – Find text in a list of files

- Steps Required for 13 files:
  - Use option 3.4 to locate files
  - Split screen
  - Navigate to option 3.14
  - For each file:
    1. Copy name 3.4 list
    2. Paste name to 3.14 list
    3. Add wildcard to file name
    4. Enter
    5. End
  - Repeat the steps above for each file
  - Steps required for 13 files:
    - 3 + (13 * 5) = 68
- Advanced ISPF user
  - Use option 3.14 in batch
  - Copy files from 3.4
  - Paste files into batch job
  - Submit job

Keystrokes: 20 per file *13 = 260
Time: About 4 minutes

IPT – Find text in an Olist

- Steps Required:
  - Set Global parameters
  - Issue FT command
  - Steps required: 2

DBCS, case sensitive, and hexadecimal search strings added with IPT V6.1

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Keystrokes: (FT text; Enter) = 10
Time: 5 seconds to key
Time: 15 seconds to find string
Workload: 500 PDS members and 8 libraries searched

Example 3 – Global Find with Multiple Criteria:

Move COBOL programs with text "Mike Rotter" to another library.

ISPF – Find text in a list of files	IPT – Find text in an Olist
– Steps Required:	– Steps Required:
• Use option 3.14 search for IDENTIFICATION	• Access the Object List
• Find 'Mike Rotter'	• GL FIND IDENTIFICATION
• For each "hit"	• GL FIND 'Mike Rotter'
– Split screen – Move the member to the target library	• Move all members to target library
• Steps required:	• Steps required: 4
– 2 + (20 * 2) = 42	
Assumption: 20 programs found	Improve Productivity

Estimated keystrokes: 200
Estimated time: 4 minutes

Keystrokes: (GL; F text;F3) *2
Keystrokes: 16
Time: 30 seconds

Example 4 – Identify Invalid APF libraries

ISPF – Identify Invalid APF Libs

- Steps Required:
  - Locate APF list in SYS1.PARMLIB
  - For each library:
    1. Copy the name of the library
    2. Paste library name into option 1
    3. Copy the volume name
    4. Paste volume
    5. Enter
    6. End
  - Steps Required: 2 + (359 * 6) = 2156

Assumption: There are 359 APF libraries

Keystrokes: About 2000
Time: About 40 minutes

IPT – Identify Invalid APF Libs

- Steps Required:
  1. Issue OLS APFLIB command
  2. Issue VALIDATE command
  3. Issue SORT CLASS command
  - Steps required: 3

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Keystrokes: About 30
Time: 30 seconds

Example 5 – PDS Directory Full

ISPF – Expand PDS Directory

– Steps Required:

- Copy in-flight work (PDS member) to another dataset
- Allocate new PDS with more Directory Blocks
- Copy all members to new PDS
- Validate all members copied
- Delete old PDS
- Rename new PDS to old PDS name
- Move in-flight PDS member to new PDS
- Edit original member to continue
- Steps required: 8

IPT – Expand PDS Directory

– Steps Required:

- IPT presents a panel indicating Directory is full
- Press Enter to compress and save your work
- Steps required: 1

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No Accidental Delete

Example 6 – Locate VSAM files with mask

ISPF – Locate VSAM files

- – Steps Required:
  - Navigate to 3.4
  - Enter a file mask
  - Sort the files by Volume
  - Locate *VSAM
  - Steps Required: 4

IPT – Locate VSAM files

- – Steps Required:
  - OLVS mask
  - Steps required: 1
- – Note: Same steps may be used for:
  - VSAM files
  - Migrated files
  - PDS/E files
  - Tapes
  - Files residing on a volume or volume pattern
  - Generation datasets

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Example 7 – Edit File from SDSF

ISPF – Edit VSAM file from SDSF

– Steps Required:

- Place cursor on the file
- Copy file from SDSF log
- Navigate to File Manager option 2 (two steps)
- Paste name of file
- Modify the data
- Steps required: 6

IPT – Edit VSAM file from SDSF

– Steps Required:

- Type EDIT as the command
- Place cursor on the file
- Modify the data
- Steps required: 3

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Example 8 – Recall a List of Migrated Files

ISPF – Recall Migrated Files

- – Steps Required:
  - • Navigate to option 2
  - • Enter file name
  - • Sort Volume
  - • Locate Migrate
  - • For each page of files (4 pages)
    - – Enter HRECALL on first migrated file
    - – Enter = on following lines
    - – Press Enter
  - • Steps required:
    - – 4 + (3 x 4) = 16

IPT – Recall Migrated Files

- – Steps Required:
  - • Type OLM DNET424
  - • Type 1-* HRECALL
  - • Steps required: 2

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Example 9 – Empty and compress a PDS with 200 members

ISPF – Empty a PDS or PDSE

- Steps Required:
  - Navigate to 3.4
  - Enter PDS library name
  - For each page (5 pages)
    - "D" for each member (17)
    - Forward (F8)
  - Enter to delete members
  - Compress the PDS
  - Steps required:
    - 4 + ((17+1)*5) = (94)
- Alternative: Allocate new PDS
  - View PDS using Option 3.2
  - Allocate similar PDS
  - Delete old PDS
  - Rename new PDS
  - Steps required: (4)
- Assumption: 85 members

IPT – Empty a PDS or PDSE

- Steps Required:
  - OL library name
  - EMPTY
  - Steps Required: (2)

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IPT Assist

- **Available using Object List and Member Selection Lists**

- **Provides easy access to IPT Commands**

```
-IPT-                          OLIST Command Assistance                    Top of data
Cmd ====>

    For more details, point cursor at selected command and press ENTER
    Enter END or CANCEL to exit
    While reviewing an ASSIST example you may enter an OLIST command,
      press ENTER , and be prompted with command over the OLIST display.


----------------------- MAIN Commands -----------------------------------
ASSIST     #f-#l     CANCEL    CLEARVOL  CMDPARMS  CUT        DEFAULT   END
EXCLUDE    EXPORT    FILLVOL   FILTER    FIND      FINDTEXT   FLIP      LEVEL
LISTALOC   LISTBASE  LISTBOOK  LISTCAT   LISTGDG   LISTHIST   LISTMIGR  LISTMULT
LISTPAGE   LISTPDSE  LISTSHLF  LISTSMP   LISTSYS   LISTTAPE   LISTVSAM  LISTVTOC
LOCATE     MEMFIND   OPEN      OPRINT    PASTE     POPULATE   QUIT      REFRESH
RELEASE    RESET     RFIND     RIGHT     SAVE      SET        SHOWCMD   SHOWMIG
SHOWTYPE   SHOWVOL   SORT      TITLE     UPDATE    UTIL       VALIDATE


----------------------- LINE Commands -----------------------------------
/          /D  /DD   /I        /R        /X   /XX  =          ?<Cmd>    %<Exec>
ALLOCATE   BF        BROWSE    CATALOG   COMPRESS  COPY       COPYALL   DELETE
DSLIST     EDIT      EF        EMPTY     EXPDIR    FREE       HDELETE   HLIST
INFO       LISTBASE  LISTBOOK  LISTCAT   LISTGDG   LISTMIGR   LISTSHLF  LISTSMP
LISTTAPE   LISTVTOC  MAPPDS    MOVE      MOVEALL   OLIST      PRINT     RENAME
SELECT     SUBMIT    UNCATALO  VF        VIEW      XFER       <other>
```
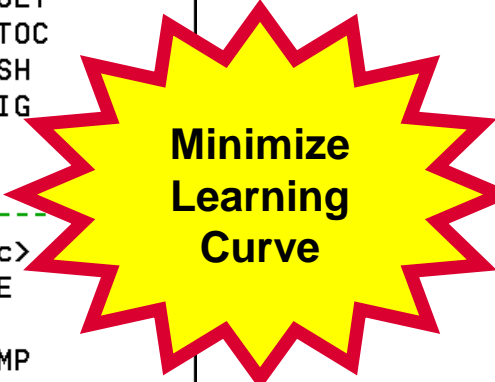
Minimize Learning Curve

Permanent TSO Command Shell

Permanent TSO Command Shell

- TSO /P - List commands
- TSO x – Directly invoke command
- Up to 999 lines retained
- Accessed from anywhere in ISPF
- Direct Access to any ISPF application

Permanent TSO Command List

```
------------------------------ PERMANENT COMMAND LIST
 1 │ SDSF H DNET424*
 2 │ ex 'DNET424.adlab.exec(testit)'
 3 │ receive inda(/)
 4 │ racf
 5 │ ex 'DNET424.debugld.EXEC(debmain)'
 6 │ hometest
 7 │ ISRDDN
 8 │ obrowse
 9 │ OEDIT
10 │ omvs
11 │ ISHELL
```

Organize Your Work Improve Productivity

Invoke ISPF applications directly from any ISPF application!

TSO Command Shell History

IPT TSO Command Shell History

- – **TSO /H - List commands**
- – **Up to 999 lines retained**
- – **Accessed from anywhere in ISPF**
- – **Direct Access to any ISPF application**

Organize Your Work
Improve Productivity

IPT TSO Command History

```
------------------- HISTORY COMMAND LIST -------------------
 1 | ISHELL
 2 | ISPEXEC SELECT panel(deb01)
 3 | call 'dnet424.adlab.load(adstat)' '/test'
 4 | ispexec libdef ispplib dataset id ('DNET424.DEBUGLD.ISPPLIB')
 5 | ISPEXEC SELECT pan(deb01)
 6 | ispexec libdef ispslib dataset id ('DNET424.DEBUGLD.ISPSLIB')
 7 | sdsf o dnet424*
 8 | ex 'DNET424.debugld.EXEC(debmain)'
 9 | LP
10 | P
11 | OMVS
12 | SDSF H DNET424*
13 | ISRDDN
```

Recover Deleted PDS members

- Map a PDS directory

- View deleted members, and *restore* a member

```
-IPT--PDS-MAP  L1-- DNET424.DTCOBII.JCL -------------------ROW 00001 OF 00008
COMMAND  ===>                                          SCROLL ===> CSR
                                            ON VOLUME DMPU34
    NAME      SYNONYM   SEQNUM     TTR DATASIZE BLKNUM RECNUM
              9Z000107       1  000107 00000FA0      1     50
    BJDAT1                   2  000109 00001E00      1
    GDTDEMO2                 3  00010B 00000FF0      1
    BDTDEM2B                 4  00010D 000018B0      1
              9Z00010F       5  00010F 000018B0      1
    JIM                      6  000111 00001040      1
    BDTDEMO2                 7  000201 000037A0      1
  r           9Z000203       8  000203 00001040      1
    --END--

    F1=HELP      F2=SPLIT      F3=END       F4=IPT View  F5=RFIND     F6=RCHANGE
    F7=UP        F8=DOWN       F9=SWAP      F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

New with IPT V 6.1

Deleted members can be restored from a PDS

OLIST and MSL Seamless Integration

- **Tasks are completed within the ISPF native environment**

- **No need to navigate to a separate ISPF Shell and return**

```
   File   Edit   Find   Display   Populate   Settings   Menu   Util   Test   Help   Exit
-------------------------------------------------------------------------------------------
-IPT- OLIST (E) ----------- LEVEL DNET424.ADLAB ------------ Row 1 to 13 of 41
Command    ===>                                        SCROLL ===> CSR
Hotbar: OPRINT    REFRESH   CLRVOL    FILLVOL   UPDATE   CUT      FLIP      VALIDATE
Open list  ===> ADLAB      (or BLANK for reference list)

Command    Member    Numbr  Data Set Names / Objects                        Class
--------   --------   -----  ---------------------------------------------   ------
                        1  'DNET424.ADLAB.CNTL'                             PDS
                        2  'DNET424.ADLAB.COBOL'                            PDSE
                        3  'DNET424.ADLAB.COPYLIB'                          PDSE
                        4  'DNET424.ADLAB.COPYLIBI'                         PDS
                        5  'DNET424.ADLAB.COPYLIBO'                         PDS
                        6  'DNET424.ADLAB.CRITERIA'                         PDSE
                        7  'DNET424.ADLAB.DBDLIB'                           PDS
                        8  'DNET424.ADLAB.DBDSOURC'                         PDSE
                        9  'DNET424.ADLAB.DTCMD'                            SEQ
                       10
                       11
                       12
                       13

 F1=HELP        F2=SPLIT
 F7=UP          F8=DOWN
```

Minimize Learning Curve

ISPF option 1, 2, 3.4 and 6 are similar to ISPF.

ISPF plus IPT commands may be entered using an Object List or Member Selection List

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Large PDS libraries – 113944 members

ISPF – Large PDS library   **IPT – Large PDS library**

Menu Functions Confirm Utilitie	Row 00001 of 13944

```
BROWSE          ISODEV.PMR52301.SURVDATA              Row 00001 of 13944
Command ===>                                          Scroll ===> CSR
         Name    Prompt    Size  Created     Changed            ID
_____ #LPRTBL#              1  2008/01/03  2008/01/03 16:56:00  PT90
_____ A0ASF001              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF002              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF003              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF004              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF005              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF006              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF007              0  2008/01/03  2008/01/03 06:37:00  PT90
_____ A0ASF008              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF009              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF010              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF011              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF012              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF013              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF014              0  2008/01/03  2008/01/03 07:11:00  PT90
_____ A0ASF015              0  2008/01/03  2008/01/03 07:11:00  PT90
```
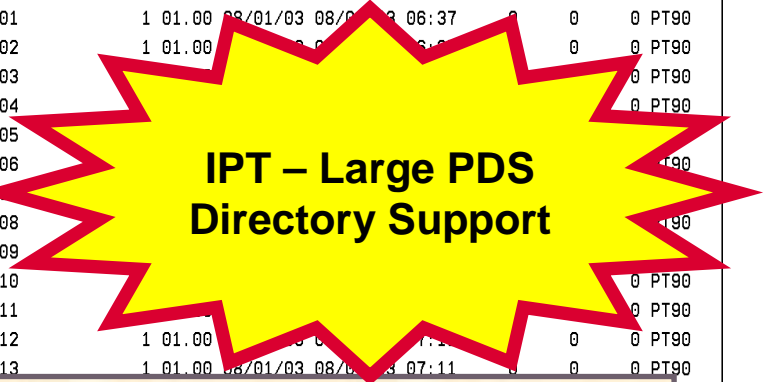
File Display Library SCLM Set	ROW 000001 OF 113944

```
-IPT--BROWSE L1---- ISODEV.PMR52301.SURVDATA -------------ROW 000001 OF 113944
COMMAND  ===>                                             SCROLL ===> PAGE
HOTBAR: REFRESH  FLIP      TAI ?     COMPRESS EXPDIR   INFO     TOTALS    UNFILTER
                                              ON VOLUME USR036
   NAME      RENAME    LIB VV.MM CREATED    CHANGED     SIZE  INIT  MOD USERID
   #LPRTBL#            1 01.02 08/01/03 08/01/03 16:56    1     0    1 PT90
   A0ASF001            1 01.00 08/01/03 08/01/03 06:37    0     0    0 PT90
   A0ASF002            1 01.00                            0          0 PT90
   A0ASF003                                                         0 PT90
   A0ASF004                                                         0 PT90
   A0ASF005
   A0ASF006
   A0ASF008
   A0ASF009
   A0ASF010                                                         0 PT90
   A0ASF011                                                         0 PT90
   A0ASF012            1 01.00                            0         0 PT90
   A0ASF013            1 01.00 08/01/03 08/01/03 07:11    0         0 PT90
```

IPT – Large PDS Directory Support

- Truncation on display
- UP/Down limit of 99999 members

IPT uses Data Spaces
  - Less memory below the line
IPT LOCATE command allows up/down navigation of 99,999,999 members

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More information on IPT

- **ISPF Productivity Tool website:**

  – http://www-306.ibm.com/software/awdtools/ispfproductivitytool/

  – Click on Library for the publications

- **ISPF Productivity Tool Redbook website:**

  – http://www.redbooks.ibm.com/redpieces/abstracts/sg247587.html?Open

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